ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Jane Dee Hull
Governor

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Jacqueline E. Schafer
Director

December 12, 2001

Dear Participant of the Underground Storage Tank (UST) State Assurance Fund (SAF) Program:

Enclosed is a copy of the 2002 Schedule of Corrective Action Costs (Cost Ceilings) as prescribed by A.R.S. § 49-1054(C). The schedule identifies allowable costs of corrective action services for which payment may be made from the UST SAF Program. The 2002 Cost Ceilings become effective on December 15, 2001 and will remain in effect until superceded by an updated version.

The 2002 Cost Ceilings, like earlier versions, are Task Based and Unit Based. These Cost Ceilings should be used in the same manner as the 2001 Cost Ceilings. This version has been updated to include "cost of living" increases in accordance with A.R.S. § 49-1054(C) and item descriptions have been clarified where necessary.

If you have any questions concerning these 2002 Cost Ceilings, please call me at (602) 207-4327, or toll free (from within Arizona) (800) 234-5677, extension 4327.

Sincerely,

Patricia A. Nowack
State Assurance Fund Administrator

Attachments

Printed on recycled paper

STATE ASSURANCE FUND
2002 COST CEILINGS

EFFECTIVE: December 15, 2001

The 2002 Cost Ceilings apply to:

1) All work conducted under a contract for corrective action services that is entered into during the effective period of this document,
2) If a contract for the corrective action services does not exist, all corrective action work conducted during the effective period of this document and
3) Pre-approval applications submitted to ADEQ during the effective period of this document.

CONTENTS

HOW TO USE THE COST CEILINGS

1. Determine the task to be claimed or proposed;

2. Determine if a Cost Ceiling for the task applies by reviewing the Cost Ceiling Descriptions and the General Notes;

3. Insert the Cost Ceiling Code, number of units and Cost Ceiling amount per unit for the task in the worksheets of the SAF application;

4. If the task or unit of work does not meet a Cost Ceiling Description, describe the activity and the claimed or proposed cost in the worksheets included with the SAF application. NOTE: If a cost ceiling is not appropriate for the task or unit of work claimed, invoices that meet the time and materials detail required in Arizona Administrative Code (A.A.C.) § R18-12-605(E) must be submitted with the SAF application (Invoices are not required with Pre-approval applications, but appropriate detail describing the activity will be required for costs to be evaluated.).

SUPPLEMENTAL UNIT RATES:

PERSONNEL RATES

1. Principal level (per hour)

   Tasks for a principal level professional, if not otherwise included in a task rate, include: direct professional staff; serve as technical expert or coordinator of large or technically complex sites; provide final review of project documents that legally bind the company; and limited site visits on complex projects. Task does not include per diem allowance.

2. Senior level (per hour)

   Tasks for a senior level professional, if not otherwise included in a task rate, include: project management/oversight; limited work plan and final report preparation/review on complex sites; development and oversight of project budget; work plan review; coordinate with ADEQ, client and contractors; hydrogeologic and contaminant modeling; equipment specification review; occasional site visits during site characterization activities; perform field activities during complex remediation activities; and supervise complex remediation activities. Task does not include per diem allowance.

3. Project level (per hour)

   Tasks for a project level professional, if not otherwise included in a task rate, include: work plan preparation; field work preparation and planning; occasional site visits during site characterization activities; perform field activities during complex remediation activities; report preparation and review; data review and analysis; equipment selection and design; supervision of UST soil and groundwater characterization and remediation activities; and oversight of waste characterization, transportation, and disposal. Task does not include per diem allowance.

4. Staff level (per hour)

   Tasks for a staff level professional, if not otherwise included in a task rate, include: report preparation; remediation system installation, operation, and maintenance; site reconnaissance and mapping; obtain site access; installation of soil borings, groundwater monitoring wells and remedial injection and extraction wells; supervise UST removal, groundwater sample collection, soil removal, and other on-site remediation activities; assist with waste characterization, transportation, and disposal; and assist in modeling and data analysis. Task does not include per diem allowance.

5. Field level (per hour)

   Tasks for a field level professional, if not otherwise included in a task rate, include: field activities associated with periodic groundwater monitoring and monthly static water level/free product gauging, well purging and development, free product removal, sample collection, limited contractor supervision, field equipment/sample preparation, decontamination, and other routine field activities. Task does not include per diem allowance.

6. Technical level: CAD, computer map production (per hour)

   Tasks for technical personnel, if not otherwise included in a task rate, include: CAD work; generation of new drawings, maps and plans; and revisions to existing drawings, maps, and plans. Task includes computer and software. Task does not include per diem allowance.

7. Administrative assistant (per hour)

   Tasks for administrative assistant professionals, if not otherwise included in a task rate, include: bookkeeping, invoice preparation, proofreading/editing, and some word processing. Task does not include per diem allowance.

8. Word processor (per hour)

   Tasks for word processing professionals, if not otherwise included in a task rate, include: general clerical duties, word processing, documentation reproduction, report binding, filing. Task includes computer and software. Task does not include per diem allowance.

CONSTRUCTION/CONTRACTING PERSONNEL RATES

9. Construction field supervisor (per hour)

   Tasks for a construction field supervisor, if not otherwise included in a task rate, include: supervision of all logistical matters including pre- and post-field planning and scheduling activities and complex construction projects requiring multiple construction personnel. Task does not include per diem allowance.

10. Skilled laborer (per hour)

    Tasks for skilled laborers, if not otherwise included in a task rate, include: small equipment operation; and tasks typically performed by individuals in the general construction, welding, electrical, and plumbing trades. Task does not include per diem allowance.

11. Unskilled laborer (per hour)

    Tasks for unskilled laborers, if not otherwise included in a task rate, include general physical labor tasks (for example, a driller's helper). Task does not include per diem allowance.

12. Equipment operator (average rate to operate a standard piece of equipment) (per hour)

    Tasks for equipment operators, if not otherwise included in a task rate, include: operation of heavy equipment including backhoes, dump trucks, excavators, loaders, and drill rigs (driller only). Task does not include per diem allowance.

PER DIEM RATES

13. Per diem requirement (miles)

    The minimum (one-way) distance from the nearest applicable office to the site that a consultant/contractor must travel to be eligible for per diem.

14. Fieldwork per diem without overnight stay (per day)

    Fieldwork per diem without overnight stay requires a minimum 8-hour field day and is applicable to both consultants and contractors.

15. Fieldwork per diem with overnight stay (per day)

    Fieldwork per diem with overnight stay (including lodging) is applicable to both consultants and contractors. An overnight stay is appropriate when time and/or distance prevents a return home at the end of a work day.

CONSULTANT MILEAGE RATES

16. Consultant mileage rate: Single person (per mile)

Consultant mileage rate includes travel time and is independent of personnel level of individual traveling to and from the site (rate is based on one staff level individual). Note: the mileage rate may not be marked up on a company-owned vehicle. A rental price and additional mileage charges for a company-owned vehicle may be eligible if the total cost of both is less than the established mileage cost ceiling.

17. Consultant mileage rate: Two persons (per mile)

Consultant mileage rate includes travel time and is independent of personnel level of individuals traveling to and from the site (rate is based on two staff level individuals). Note: the mileage rate may not be marked up on a company-owned vehicle. A rental price and additional mileage charges for a company-owned vehicle may be eligible if the total cost of both is less than the established mileage cost ceiling.

PROJECT SET-UP AND ADMINISTRATION

18. Initial project set-up (lump sum)

This task is for newly confirmed releases or for a new consultant firm on site and includes initial scheduling and assessment of personnel requirements, review of incident information and ADEQ requirements for the characterization and possible remediation of the site. This task does not include file copying costs. Task is per LUST site and includes a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

19. Previously assessed project review (lump sum)

This task is for an existing, confirmed release, and includes the review of assessment and corrective action files from the client and previous consulting firm(s). This task does not include file copying costs. Summary of the information reviewed must be documented within the LUST file. Task is per site and includes a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

20. Agency data analysis (lump sum)

This task is for an existing, confirmed LUST release and includes the review and analysis of agency files and data. Data may be maintained by fire departments or state/county environmental agencies. This task does not include file copying costs. Summary of the information reviewed must be documented within the LUST file. Task is per site and includes a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

21. Site reconnaissance and field receptor survey: 1/4 mile (lump sum)

This task consists of an inspection of the features of the immediate LUST site and surrounding properties in accordance with ADEQ guidance current at the time work is performed. The survey will note tank location, dispenser location, monitoring wells, and other site features including receptor populations. Potential migration pathways such as utility lines, storm sanitary sewers, catch basins and drainage ditches are to be noted. The site reconnaissance should be sufficient for the production of a field grade map that will allow development of health and safety plans and locating assessment and remediation activities. This task also includes the total personnel, equipment and material cost to perform a physical search within a 0.25 mile radius of the site to locate private wells or other receptors and typically does not require a door-to-door search. The final product from this task is a field grade map and documentation of these activities in the LUST file. Task is per LUST site and includes a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

22. Agency receptor survey: 1/4 mile (lump sum)

This task consists of the identification of public and private water supply wells within 0.25 miles of a site or within a defined area set by ADEQ. The information may be obtained using a local water resource agency in addition to ADWR and should include well ownership, well location, well completion data, well use, and depth to water. This task includes time to summarize the data and the minimal fees that may be incurred. Task is per LUST site and includes a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

23. Historical research (lump sum)

This task includes interviews, photo analysis, building permit review, and title review. The object of this task is to identify property use over the last 50 years. This task does not include direct cost for data acquisition (i.e., cost of title search or aerial photograph). Summary of

the sources contacted and the information reviewed must be documented in the LUST file. Task is per LUST site and includes a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

24. Pursuit of off-site access agreement with a private entity only (lump sum per party solicitation)

This task consists of the total personnel, equipment and material cost associated with pursuit of an off-site access agreement including review of tax assessor records. Off-site access agreements must be pursued in accordance with A.R.S.§ 49-1022. For purposes of this task, eligible site access efforts are limited to: two (2) written requests for access by the owner/operator, documented receipt of each written request, and, if necessary, a written request by the owner/operator that ADEQ attempt to obtain access to the property. This task includes a round trip travel distance of 60 miles. This task does not include permit costs or document copying fees. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

WORK PLAN PREPARATION

25. Approved Site Characterization Work Plan: Soil only (per plan)

This task consists of the total personnel, equipment, and material cost, per approved work plan, required to prepare a site specific work plan as required by ADEQ or for SAF pre-approval purposes. This report includes property background, UST history discussion, and discussion of proposed activities and preparation of cost estimates and budgets. Report costs include: senior level review of document; clerical support; and all other direct costs such as copying, binding, and postage. The task cost includes modification, revisions, and resubmittals necessary to obtain ADEQ approval. The task does not include mileage, per diem, or other out-of-office expenses. Note: this item does not include SAF application preparation.

26. Approved Site Characterization Work Plan: Soil and groundwater (per plan)

This task consists of the total personnel, equipment, and material cost, per approved work plan, required to prepare a site specific work plan as required by ADEQ or for SAF pre-approval purposes. This report includes property background, UST history discussion, and discussion of proposed activities and preparation of cost estimates and budgets. Report costs include: senior level review of document, clerical support, and all other direct costs

such as copying, binding and postage. The task includes modification, revisions, and resubmittals necessary to obtain ADEQ approval. The task does not include mileage, per diem, or other out-of-office expenses. Note: this item does not include SAF application preparation.

27. Initial site characterization health and safety plan (per plan)

This task consists of the total personnel, equipment, and material cost, per plan, required to prepare a health and safety plan, in accordance with OSHA requirements, for all planned site characterization activities. This task includes time for review, clerical support, and all other direct costs such as copying and binding. A copy of the health and safety plan must be submitted to the LUST file.

REMEDIAL PLANS

28. ADEQ-Approved Corrective Action Plan (CAP) for active remedial treatment of contamination (per CAP)

This task consists of the total personnel, equipment, and material cost, per report, required to complete an approved CAP proposing an active treatment approach. This report includes property background, UST history discussion, and discussion of proposed activities and preparation of cost estimates and budgets. Report costs include: senior level review of document; clerical support; and all other direct costs such as copying, binding, and postage. The task cost includes modification, revisions, and resubmittals necessary to obtain ADEQ approval. The CAP must be prepared in accordance with ADEQ corrective action guidance and must include a discussion of feasibility testing methodology and results.

29. ADEQ-Approved CAP for natural attenuation (per CAP)

This task consists of the total personnel, equipment, and material cost, per report, required to complete an approved CAP proposing natural attenuation. This report includes property background, UST history discussion, and discussion of proposed activities and preparation of cost estimates and budgets. Report costs include: senior level review of document; clerical support; and all other direct costs such as copying, binding, and postage. The task cost includes modification, revisions, and resubmittals necessary to obtain ADEQ approval. The CAP must be prepared in accordance with ADEQ corrective action guidance and must include a discussion of feasibility testing methodology and results.

30. Pre-built remedial engineering design (per design)

This task consists of the total personnel, equipment, and material cost, per design, required to complete a pre-built remedial engineering design package. At a minimum, the design package should include all subgrade and surface component specifications, site plans and construction details. Note: this task is limited to design packages prepared following CAP approval to obtain construction estimates and permits.

31. Preparation of work plan to implement an ADEQ-approved CAP (per plan)

This task consists of the total personnel, equipment, and material cost, per work plan, required to prepare a work plan to implement a phase(s) of an approved CAP not to exceed three years in duration. The work plan will reference the approved CAP and summarize proposed remedial activities. The task cost includes modification, revisions, and resubmittals necessary to obtain ADEQ approval, time for review, clerical support, and all other direct costs such as copying and binding.

32. Remediation health and safety plan (per plan)

This task consists of the total personnel, equipment, and material cost, per plan, required to prepare a health and safety plan, in accordance with OSHA requirements, for all planned remediation activities. This task includes time for review, clerical support, and all other direct costs such as copying and binding. A copy of the health and safety plan must be submitted to the LUST file.

FIELD ACTIVITIES

33. Consultant's full day rate (per day)

A consultant's full day rate per day, if not otherwise included in a task rate, includes all activities and typical field equipment necessary to perform a day's work in the field, including equipment preparation, loading, and decontamination. This rate includes scheduling and oversight of all site characterization and remediation field activities associated with but not limited to soil borings, groundwater monitor/recovery well construction and abandonment, remedial excavation, and remedial system installation and start-up. This rate includes field instrumentation appropriate for the field task performed (i.e., FID, PID, water level indicator, pH-temperature-conductivity meter, LEL/O_2 meter, mobile phone).

Only one full day rate is eligible per 24-hour period per person. For SAF purposes, a consultant must be on-site more than four hours. Each individual may claim one full day rate if on site for a period greater than four hours and less than or equal to eight hours. The rate

is inclusive of standard personnel rates and includes project management related only to field activities associated with the specific day's activity. Note: This item does not include consultant mileage rate (item description nos. 16 and 17) or per diem. (See General Notes)

34. Consultant's half day rate (per half day)

A consultant's half day rate per half day, if not otherwise included in a task rate, includes all activities and typical field equipment necessary to perform a half day's work in the field, including equipment preparation, loading, and decontamination. This rate includes scheduling and oversight of all site characterization and remediation field activities associated with but not limited to soil borings, groundwater monitor/recovery well construction and abandonment, remedial excavation, and remedial system installation and start-up. This rate includes field instrumentation appropriate for the field task performed (i.e., FID, PID, water level indicator, pH-temperature-conductivity meter, LEL/O_2 meter, mobile phone).

Only one half day rate is eligible per 24-hour period per person per site. For SAF purposes, a consultant's half day rate may be claimed for each individual on site for a period up to four hours. The rate is independent of standard personnel rates and includes project management related to field activities associated only with the specific on-site activity. Note: This item does not include consultant mileage rate (item description nos. 16 and 17) or per diem. (See General Notes)

CONTRACTOR UST REMOVAL AND CLOSURE

35. Contractor mobilization/demobilization (per event)

This task consists of the total personnel, equipment and material cost per event for the following activities: preparation and loading of all appropriate equipment, materials, and supplies, including support vehicles. This task also includes all costs associated with initial vehicle travel to the site, site clean-up and return to the yard. This task includes a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the contractor mobilization/demobilization incremental travel rate (item description no. 36). Note: This is a one-time charge per event and includes personnel travel.

36. Contractor mobilization/demobilization incremental travel rate (per mile)

This task consists of the total personnel, equipment and material cost per mile for incremental mileage above the 60 miles included in contractor mobilization/demobilization (item description no. 35). This task includes all costs associated with vehicle and labor travel to and

from the site. Note: This is a one-time charge per event and does not pertain to work crew travel on a daily basis.

37. Contractor daily travel cost (per mile)

This task consists of the total personnel, equipment and material cost per mile for work crew travel to and from the site on a daily basis.

UST REMOVAL

The tasks listed below include the total contractor personnel, equipment and material cost per tank required for the following activities related to closure of a single UST: acquisition of all necessary permits, field supervision, tank removal, decommissioning, cutting, disposal, backfill, and site clean-up. Field supervision of UST removal and closure includes all logistics, including pre- and post-field planning activities. Tasks do not include travel, mileage, asphalt/concrete replacement, or excavation of more than the volume of soil necessary to remove the tank (no over excavation of petroleum hydrocarbon-impacted soil). (See General Notes)

38. One UST less than or equal to 4,000-gallons (per tank)

39. Cost for each additional tank (per tank)

40. One UST greater than 4,000-gallons and less than or equal to 15,000-gallons (per tank)

41. Cost for each additional tank (per tank)

42. One UST greater than 15,000-gallons (per tank)

43. Cost for each additional tank (per tank)

OFF-SITE TRANSPORTATION OF TANKS

The tasks listed below include the total contractor personnel, equipment and material cost per mile required to transport tank(s) off-site for disposal. This rate includes driver's labor at the equipment operator rate.

44. One UST less than or equal to 4,000-gallons (per mile)

45. Cost for each additional tank (per mile)

46. One UST greater than 4,000-gallons and less than or Equal to 15,000-gallons (per mile)

47. Cost for each additional tank (per mile)

48. One UST greater than 15,000-gallons (per mile)

49. Cost for each additional tank (per mile)

CONTRACTOR DRILLING-RELATED ACTIVITIES

SOIL BORING AND SAMPLING MOBILIZATION/DEMOBILIZATION

The tasks listed below include the total personnel, equipment and material cost per event for the following activities: preparation and loading of all appropriate equipment, materials, and supplies, including support vehicles. This task also includes all costs associated with initial rig and support vehicle travel to the site, site clean-up, return to the yard and a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the per mile travel rate set forth in the soil boring and sampling travel rate (item descriptions nos. 52 and 53). Note: This is a one-time charge per event.

50. Hollow stem auger drilling method (per event)

51. All other drilling methods: Percussion, air rotary, rotosonic (per event)

SOIL BORING AND SAMPLING TRAVEL RATE

The tasks listed below (item description nos. 52 and 53) consist of the total personnel, equipment and material cost per mile for incremental mileage above the 60 miles included in contractor soil boring and sampling mobilization/demobilization (item description nos. 50 and 51). These tasks include all costs associated with initial rig and support vehicle travel to and from the site, site clean-up and return to the yard. Note: these are one-time charges per event and do not pertain to drill crew travel on a daily basis.

52. Hollow stem auger drilling method (per mile)

53. All other drilling methods: Percussion, air rotary, rotosonic (per mile)

54. Soil boring and sampling daily travel rate (per mile)

This task consists of the total personnel, equipment and material cost per mile for drill crew travel to and from the site on a daily basis.

SOIL BORING AND SAMPLING

The tasks listed below (item description nos. 55 through 61) consist of the total cost per foot per boring for the following items/activities performed in accordance with ADEQ guidance current at the time work is performed and applies to all footage drilled. These tasks include: drill rig, support vehicles and crew; soil sampling at intervals of five to ten feet; decontamination procedures; sampling equipment; moving between borehole locations; brass sleeves and associated sample collection and preservation materials; and drilling consumables/bits. Tasks do not include: concrete coring; mobilization/demobilization; travel; or storage, transportation and disposal of investigation-derived waste.

55. Hollow stem auger drilling method: Vertical boring (per foot)

56. Hollow stem auger drilling method: Angle boring (per foot)

57. Limited access drilling method: Vertical boring (per foot)

58. Air rotary drilling method: Vertical boring (per foot)

59. Rotosonic drilling method: Vertical boring (per foot)

60. Dual wall percussion drilling method: Vertical boring (per foot)

61. Dual wall percussion drilling method: Angle boring (per foot)

62. Soil boring abandonment by grout: All boring diameters (per foot)

This task consists of the total cost per foot per boring for the labor and materials associated with the abandonment of soil borings by grouting. Task does not include mobilization/demobilization or mileage.

63. Contractor standby rate: Hollow stem auger (per hour)

This task consists of the hourly standby rate for a hollow stem auger. Only costs for downtime due to waiting on mobile lab results are eligible.

64. Contractor standby rate: All other rig types (per hour)

This task consists of the hourly standby rate for all other rig types. Only costs for downtime due to waiting on mobile lab results are eligible.

WELL INSTALLATION

The tasks listed below (item description nos. 65 through 76) consist of the total cost per foot per well for the following items/activities performed in accordance with ADEQ guidance current at the time work is performed and applies to all footages. Task costs are based upon well installation using schedule 40 PVC casing and 30 feet of well screen. These tasks include: drill rig, support vehicles and crew; soil sampling at intervals of five to ten feet; decontamination procedures; sampling equipment; moving between wells; brass sleeves and associated sample collection and preservation materials; drilling consumables/bits; and well installation and well materials. Tasks do not include: concrete coring; limited access rigs; nested well configurations; mobilization/demobilization; travel; or storage, transportation and disposal of investigation-derived waste.

65. 2-inch hollow stem auger (per foot)

66. 4-inch hollow stem auger (per foot)

67. 6-inch hollow stem auger (per foot)

68. 2-inch air rotary (per foot)

69. 4-inch air rotary (per foot)

70. 6-inch air rotary (per foot)

71. 2-inch rotosonic (per foot)

72. 4-inch rotosonic (per foot)

73. 6-inch rotosonic (per foot)

74. 2-inch dual wall percussion (per foot)

75. 4-inch dual wall percussion (per foot)

76. 6-inch dual wall percussion (per foot)

77. Monitor well surface completion: Access vault less than or equal to 12" (per well)

This task consists of the total personnel, equipment and material cost per well required to install a three foot square or less concrete pad with traffic rated (flush) vault in accordance with applicable ASTM standards. Task does not include mobilization/demobilization or travel.

78. Monitor well surface completion: Access vault greater than 12" to less than or equal to 24" (per well)

This task consists of the total personnel, equipment and material cost per well required to install a four foot square or less concrete pad with traffic rated (flush) vault in accordance with applicable ASTM standards. Task does not include mobilization/demobilization or travel.

CONTRACTOR MONITOR WELL DEVELOPMENT

79. Mobilization/demobilization (per event)

This task consists of the total personnel, equipment and material cost per event for the following activities: preparation and loading of all appropriate equipment, materials, and supplies, including support vehicles. This task includes up to 60-miles round trip. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the travel rate per mile (item description no. 80). Note: This is a one-time charge per event.

80. Travel cost (per mile)

This task consists of the total personnel, equipment and material cost per mile for incremental mileage above the 60 miles included in contractor mobilization/demobilization (item description 79). This task includes all costs associated with initial rig and support vehicle

travel to and from the site. Note: This is a one-time charge per event and does not pertain to drill crew travel on a daily basis.

MONITOR WELL DEVELOPMENT

The tasks listed below consist of the total personnel, equipment, and material cost per well required to develop a newly installed monitor well in accordance with industry standards and ADEQ guidance and includes all appropriate surface and downhole equipment, field instrumentation, and decontamination equipment. Tasks do not include low yield wells; mobilization/demobilization/travel; consultant supervision; typical site clean-up; purging associated with groundwater monitoring and sampling; or storage, transportation and disposal of installation-derived waste.

81. 2-inch monitor well: Depth to water less than 100 feet (per well)

82. 2-inch monitor well: Depth to water equal to or greater than 100 feet (per well)

83. 4-inch monitor well: Depth to water less than 100 feet (per well)

84. 4-inch monitor well: Depth to water equal to or greater than 100 feet (per well)

85. 6-inch monitor well: Depth to water less than 100 feet (per well)

86. 6-inch monitor well: Depth to water equal to or greater than 100 feet (per well)

GROUNDWATER MONITORING AND SAMPLING

87. Consultant make ready (per event)

This task includes preparation and loading of appropriate equipment, materials, and supplies necessary for groundwater monitoring and sampling and is inclusive of individual labor rates. This task does not include mileage.

88. Groundwater monitoring field equipment day rate (per day)
(Purging is required)

This item includes necessary purging and sampling equipment and instrumentation (i.e., pump, generator, bailers, ropes, organic vapor analyzers, pH/temperature/conductivity meter(s), mobile phone, water level measurement device).

89. Groundwater monitoring field equipment day rate (per day)
(Non-purging)

This item includes sampling equipment and instrumentation necessary during a non-purging sample event (i.e., bailers, ropes, organic vapor analyzers, pH/temperature/conductivity meter(s), mobile phone, water level measurement device).

COMPLIANCE SAMPLING METHODOLOGY

(Purging is required)

The tasks listed below consist of the following field activities: well purging and compliance sampling in accordance with ADEQ guidance current at the time of the sampling event, sample storage and collection of static water level data. These tasks assume a minimum recharge of 80% recovery in 60 minutes prior to groundwater sample collection. These tasks include all necessary groundwater sampling equipment, field time and task-specific project management.

90. 2-inch monitor well: Depth to water less than 100 feet (per well)

91. 2-inch monitor well: Depth to water equal to or greater than 100 feet (per well)

92. 4-inch monitor well: Depth to water less than 100 feet (per well)

93. 4-inch monitor well: Depth to water equal to or greater than 100 feet (per well)

94. 6-inch monitor well: Depth to water less than 100 feet (per well)

95. 6-inch monitor well: Depth to water equal to or greater than 100 feet (per well)

INVESTIGATIVE SAMPLING METHODOLOGY

(Purging is not required)

96. Investigative sampling, all well diameters (per well)

This task consists of the following field activities: investigative well sampling in accordance with ADEQ guidance current at the time of the sampling event, sample storage and collection of static water level data. This task is per event and is independent of well diameter, depth of well and depth to water. This task includes all necessary groundwater sampling equipment, field time and task-specific project management.

97. Consultant fluid level monitoring (per well)

This task includes the total personnel, equipment, and material cost per well for on-site collection of free product and/or groundwater elevations, measurement of free product thickness and task-specific project management.

98. Free product removal via hand bailing or hand pumping (per well)

This task consists of the total personnel field time, equipment, material cost per well required for manual free product removal and task-specific project management. This rate includes time to transfer fluid into proper containment as well as personnel time to tabulate product recovery data.

99. Free product removal via dedicated removal device (per well)

This task consists of the total personnel field time, equipment, and material cost per well

required for emptying a dedicated removal device (i.e., skimmer) and task-specific project management. This rate includes time to transfer fluid into proper containment as well as personnel time to tabulate product recovery data.

PILOT AND FEASIBILITY TESTING

100. Aquifer pump test (per event)

This task consists of the total personnel, aquifer pump test equipment, and material cost per event required to perform one 12-hour constant rate/constant head aquifer test followed by a recovery test that is performed for a duration that allows static conditions to be achieved or for a maximum duration of 12 hours, whichever occurs first. This task is based on use of established monitor wells with one pumping well and three monitoring wells. Field personnel will be on-site during the period of active pumping as well as recovery testing. This task includes task-specific project management and oversight, all necessary field personnel and equipment, mobilization/demobilization, make ready, field supervision, project logistics, data logging, and collection of samples.

This task includes data evaluation such as Theis and Jacob solutions and range and mean values of hydraulic conductivity. Reporting of activities associated with this task are to be included in the LUST file.

This task includes a round trip travel distance of up to 60 miles; incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

This task does not include permitting or characterization, containerization, transportation, or disposal of test-derived waste. A consultant's full or half day rate can not be claimed in addition to the per event rate set forth in this description.

101. Aquifer slug test (per event)

This task consists of the total personnel, aquifer slug test equipment, and material cost per event required to perform one rising head and falling head slug test at three established groundwater monitor wells. Field personnel will be on-site during the period of testing. This task is based on one 10-hour field day. This task includes task-specific project management and oversight, mobilization/demobilization, make ready, field supervision, all necessary field personnel and equipment, project logistics, data logging, and collection compilation of data and data analysis such as Jacob, Bierschenk, or other industry standard methodologies. Reporting of activities associated with this task are to be included in the LUST file.

This task includes a round trip travel distance of up to 60 miles; incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

This task does not include characterization, containerization, transportation, or disposal of test-derived waste. A consultant's full or half day rate can not be claimed in addition to the per event rate set forth in this description.

102. Soil vapor extraction (SVE) test (per event)

This task consists of the total personnel, SVE test equipment, and material cost per event required to perform one 8-hour, multiple stepped soil vapor extraction test using one central vapor extraction well and up to four lateral monitoring points that are already in place. Field personnel will be on-site during the period of testing. Task includes task-specific project management and oversight, mobilization/demobilization, make ready, field supervision, all necessary field personnel and equipment, project logistics, data logging, and collection of at least one off-gas vapor sample for analysis. Task also includes data analysis using industry standard methodologies. Reporting of activities associated with this task are to be included in the LUST file.

This task includes a round trip travel distance of up to 60 miles; incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

This task does not include SVE test unit (item description no. 144); permitting; installation of SVE well or monitoring points; dewatering in conjunction with venting; off-gas treatment; or characterization, containerization, transportation, or disposal of test-derived waste. A

consultant's full or half day rate can not be claimed in addition to the per event rate set forth in this description.

103. SVE/air sparge test (per event)

This task consists of the total personnel, SVE and air sparge test equipment, and material cost per event required to perform one 2-day, multiple stepped combination SVE and air sparge test using one central vapor extraction well, one air sparge well and up to five lateral monitoring points that are already in place. Field personnel will be on-site during the period of testing. Task includes task-specific project management and oversight, mobilization/demobilization, make ready, field supervision, all necessary field personnel and equipment, project logistics, data logging, and collection of at least one off-gas vapor sample for analysis. Task also includes data analysis using industry standard methodologies. Reporting of activities associated with this task are to be included in the LUST file.

This task includes a round trip travel distance of up to 60 miles; incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

This task does not include SVE/air sparge test unit (item description no. 144); permitting; installation of SVE or air sparge wells or monitoring points; dewatering in conjunction with venting; off-gas treatment; or characterization, containerization, transportation, or disposal of test-derived waste. Consultant's full or half day rates can not be claimed in addition to the per event rate set forth in this description.

104. Bioremediation test (per event)

This task consists of the total personnel, bioventing test equipment, and material cost per event required to perform one 10-hour, multiple stepped air injection test and three days follow up for respiration monitoring (one 2-hour respiration monitoring period per day), using one central air injection well and up to five lateral monitoring points that are already in place. Field personnel will be on-site during the period of testing. Task includes task-specific project management and oversight, mobilization/demobilization, make ready, field supervision, project logistics, data logging collection of vapor samples, and data compilation and analysis. Task also includes associated field equipment and industry standard methodologies for data analysis. Reporting of activities associated with this task are to be included in the LUST file.

This task includes a round trip travel distance of up to 60 miles; incremental mileage over 60

miles will be evaluated on a per mile basis utilizing the appropriate consultant mileage rate (item description nos. 16 and 17).

This task does not include well or monitoring point installation or characterization, containerization, transportation, or disposal of test-derived waste. Consultant's full or half day rates can not be claimed in addition to the per event rate set forth in this description.

REMEDIATION ACTIVITIES

105. Remedial excavation (per cubic yard)

This task consists of the total cost per cubic yard for bulk soil excavation (contaminated soil) for all tonnage. Task includes total personnel and equipment necessary to complete soil excavation and loading of non-containerized bulk soil. Task does not include trenching around utility lines and/or building foundations.

106. Bulk soil transportation (per ton)

This task consists of the total cost per ton for bulk soil transportation of contaminated soil, clean soil, or imported backfill [all tonnages]. This item includes travel up to 60 miles round trip.

107. Backfill and compaction (per ton)

This task consists of the total cost per ton for total personnel and equipment costs necessary to backfill and compact a remedial excavation. This task includes all mobilization/demobilization of personnel and equipment. This task is based on the use of import backfill material and includes density testing and reporting.

108. Containerized contaminated water disposal (per drum)

This task includes proper disposal of containerized contaminated water at an ADEQ approved facility. This task does not include consultant's time to characterize or manifest the water for disposal and/or analytical cost.

109. Containerized contaminated soil disposal (per drum)

This task includes proper disposal of containerized contaminated soil at an ADEQ approved facility. This task does not include consultant's time to characterize or manifest the soil for disposal.

110. Waste characterization (per event)

Task includes preparation of waste characterization paperwork for client signature(s) (i.e., manifest, profile sheets), task-specific project management and oversight, bidding, coordination, scheduling and field supervision of the removal and disposal of non-hazardous waste. This task assumes the proper required analytical laboratory result has been used to characterize the specific liquid or solid contaminated waste. Documentation of this activity must be submitted to the LUST file. This task does not include analytical cost.

111. Landfill disposal of petroleum contaminated soil (per ton)

This task consists of the total cost per ton for landfill disposal of petroleum contaminated soil (PCS) at a properly permitted landfill facility. This task does not include mobilization/demobilization or transportation costs for equipment and/or personnel.

112. Thermal remediation of petroleum contaminated soil: Ex-situ, on-site, using a portable facility (per ton)

This task consists of the total cost per ton for on-site, ex-situ thermal remediation of PCS using a permitted portable facility.

113. Thermal remediation of petroleum contaminated soil: Ex-situ, off-site, utilizing a fixed facility (per ton)

For quantities greater than 40 tons, this task consists of the total cost per ton for off-site, ex-situ thermal remediation of PCS using a permitted fixed facility.

114. Bioremediation of petroleum contaminated soil: Ex-situ, off-site, utilizing a fixed facility (per ton)

This task consists of the total cost per ton for off-site, ex-situ bioremediation of PCS at a permitted fixed facility. This task does not apply to on-site portable bioremediation facilities.

115. Construction and installation of soil and/or groundwater remedial system (per event)

This task consists of the total contractor personnel, equipment and material required for installation of a turnkey soil and/or groundwater remedial system. The task includes transportation and disposal of construction debris. This task requires a minimum of three bids. (See General Notes)

116. Remedial system operation and maintenance (O&M) (per month)

This task includes the total personnel, equipment, and material cost per month to operate and maintain a remedial system. Task includes make ready/preparation and task-specific project management; periodic air/vapor sampling events required to meet operations and permit requirements performed in conjunction with regularly scheduled O&M visits; regular repairs and maintenance activities such as filter and hose change out, system lubrication, and carbon exchange; and system monitoring and sampling instrumentation. This task does not include utility costs, mileage, major repairs, extensive trouble shooting or analytical fees.

REPORTING ACTIVITIES

117. 14-day release confirmation report (per report)

This task consists of the total personnel, equipment, and material cost to prepare and submit the one to four page release confirmation report in response to a confirmed release based on the presence of free product or laboratory detectable contaminant concentrations. This report is to be prepared in accordance with ADEQ release reporting requirements. This task also includes a telephone call for 24 hour release notification.

ADEQ-APPROVED STANDARD SITE CHARACTERIZATION REPORT

118. ADEQ-approved standard Site Characterization Report (SCR): Up to 4 soil borings (per report)

This task consists of the total personnel, equipment, and material cost per report required to prepare one complete and ADEQ approved SCR as required by ADEQ and documented in the LUST file. The SCR should include a conceptual site model, data collection, evaluation and documentation including all figures and reports in the format specified by ADEQ

guidance. Required attachments to the SCR include a site location map, site plan, soil contamination map, geologic cross sections, soil sampling analytical results, laboratory reports, chain-of-custody and laboratory QA/QC. Task includes the personnel time for preparation of the report including time for review; modifications, revisions and resubmittals necessary to obtain ADEQ approval; clerical support; and all other direct costs such as copying, binding and postage. Task does not include field time for pilot and feasibility tests.

119. ADEQ- approved standard SCR: Incremental cost increase per soil boring (per boring)

This task consists of the total personnel, equipment, and material cost per boring required to include each additional boring over and above the four soil borings included in the standard SCR (item description nos. 118 and 122).

120. ADEQ-approved standard SCR: Up to 4 groundwater monitor wells (per report)

This task consists of the total personnel, equipment, and material cost per report required to prepare one complete and ADEQ approved SCR. The SCR should include a conceptual site model, data collection, evaluation and documentation including all figures and reports in the format specified by ADEQ guidance. Required attachments to the SCR include a site location map, site plan, soil and groundwater contamination maps, geologic cross sections, soil and groundwater sampling analytical results, laboratory reports, chain-of-custody and laboratory QA/QC reports. Task includes the personnel time for preparation of the report including time for review; modifications, revisions and resubmittals necessary to obtain

ADEQ approval; clerical support; and all other direct costs such as copying, binding and postage. Task does not include field time or pilot and feasibility tests.

121. ADEQ-approved standard SCR: Incremental cost increase per groundwater monitor well (per well)

This task consists of the total personnel, equipment, and material cost per well required to include each additional well over and above the four groundwater monitor wells comprising a standard groundwater only or soil and groundwater SCR (item description nos. 120 and 122).

122. ADEQ-approved standard SCR: Up to 4 soil borings and 4 groundwater monitor wells (per report)

This task consists of the total personnel, equipment, and material cost per report required to prepare one complete and ADEQ approved SCR. The SCR should include a conceptual site

model, data collection, evaluation and documentation including all figures and reports in the format specified by ADEQ guidance. Required attachments to the SCR include a site location map, site plan, soil and groundwater contamination maps, geologic cross sections, soil and groundwater sampling analytical results, laboratory reports, chain-of-custody and laboratory QA/QC reports. Task includes the personnel time for preparation of the report including time for review; modifications, revisions and resubmittals necessary to obtain ADEQ approval; clerical support; and all other direct costs such as copying, binding and postage. Task does not include field time or pilot and feasibility tests. Incremental per boring and monitor well costs may be claimed for each soil boring and groundwater monitor well over the four set forth in this task (item description nos. 119 and 121).

REMEDIAL REPORTS

123. Initial periodic groundwater monitoring report: Up to 4 groundwater monitor wells (per report)

This task consists of the total personnel, equipment, and material cost per report necessary to complete the first periodic monitoring report. The report conveys results of the first sampling event performed at the site and must include complete description of all work completed, periodic water-level-elevation data for each groundwater monitor and recovery well, periodic free product thickness data for each well containing free product, analytical results for groundwater sampling, site diagrams, a groundwater contaminant concentration map, up to two hydrographs, and analysis of data. Task includes the personnel time for preparation of the report including time for review; modifications, revisions and resubmittals necessary to obtain ADEQ approval; clerical support; and all other direct costs such as copying, binding and postage.

124. Initial periodic groundwater monitoring report: Incremental report preparation cost for each additional groundwater monitor well (per well)

This task consists of the total personnel, equipment, and material cost per well required to include each additional well in excess of the four groundwater monitor wells comprising a standard groundwater monitoring report (item description no. 123).

125. Subsequent periodic groundwater monitoring report: Up through 4 groundwater monitor wells (per report)

This task consists of the total personnel, equipment, and material cost per report necessary

to complete each subsequent groundwater monitoring report. Submittal of subsequent reports should not exceed the frequency required by ADEQ. Each report must include complete description of all work completed subsequent to last periodic report, periodic water-level elevation data for each groundwater monitor and recovery well, periodic free product thickness data for each well containing free product, analytical results for groundwater sampling, site diagrams, a groundwater contaminate concentration map, up to two hydrographs, and analysis of data. Task includes the personnel time for preparation of the report including time for review; modifications, revisions and resubmittals necessary to obtain ADEQ approval; clerical support; and all other direct costs such as copying, binding and postage.

126. Subsequent periodic groundwater monitoring report: Incremental report preparation cost for each additional groundwater monitor well (per well)

This task consists of the total personnel, equipment, and material cost per well required to include each additional well in excess of the four groundwater monitor wells comprising a standard subsequent groundwater monitoring report (item description no. 125).

127. Initial periodic remedial progress report: Soil and groundwater (per report)

This task consists of the total personnel, equipment, and material cost per report required to prepare the initial periodic remedial progress report for passive and active remediation. This report must include a description of all work performed, hydrocarbon recovery, periodic monitoring results, influent and effluent system sampling results, amount of media treated, site diagrams, and analysis of current and historical data. Task includes the personnel time for preparation of the report including time for review; modifications, revisions and resubmittals necessary to obtain ADEQ approval; clerical support; and all other direct costs such as copying, binding and postage. Note: This report is typically no more than two pages of text with attached data.

128. Subsequent periodic remedial progress report: Soil and groundwater (per report)

This task consists of the total personnel, equipment, and material cost per report required to prepare the subsequent remedial progress reports for passive and active remediation. Submittal of subsequent reports should not exceed the frequency required by ADEQ. This report must include description of all work performed, periodic monitoring results, influent and effluent system sampling results, amount of media treated, site diagrams, and analysis of current and historical data. Task includes the personnel time for preparation of the report including time for review; modifications, revisions and resubmittals necessary to obtain

ADEQ approval; clerical support; and all other direct costs such as copying, binding and postage. Note: This report is typically no more than two pages of text with attached data.

129. Post-remediation closure report (per report)

This task consists of the total personnel, equipment, and material cost per report required to prepare a post-remediation closure report. This report must include description of all work performed in association with confirmation borings, analytical results, amount of media treated, site diagrams, and analysis of current data. This report is typically submitted when analytical results indicate that contaminant concentrations have been reduced to levels below applicable regulatory thresholds. Information contained within this report must ultimately result in case closure. Task includes the personnel time for preparation of the report including time for review; modifications, revisions and resubmittals necessary to obtain ADEQ approval; clerical support; and all other direct costs such as copying, binding and postage. Note: This report is typically no more than two pages of text with attached data.

130. Site de-commissioning letter report (per report)

This task consists of the total personnel, equipment, and material cost per report to prepare a site de-commissioning letter report. This letter report is not to exceed two pages in length and is to be limited to a summary of tasks performed to de-commission a closed site.

SAF APPLICATION PREPARATION

131. Pre-approval application (per application)

This task consists of the total personnel, equipment, and material cost per application required to prepare a SAF pre-approval application. Task includes preparation of the application including review, clerical support, and all other direct costs such as copying, binding and postage. Task does not include any work plan preparation; only preparation of the application.

132. Reimbursement/direct pay application: 2 or less primary (main provider) invoices (per application)

This task consists of the total personnel, equipment, and material cost per application required to prepare a SAF reimbursement application. Tasks include preparation of the

application including review, clerical support, and all other direct costs such as copying, binding and postage. This task includes a SAF application that has no more than two primary (main provider) invoices.

133. Reimbursement/direct pay application: More than 2, but less than or equal to 5 primary (main provider) invoices (per application)

This task consists of the total personnel, equipment, and material cost per application required to prepare a SAF reimbursement application. Tasks include preparation of the application including review, clerical support, and all other direct costs such as copying, binding and postage. Task includes a SAF application with two through five invoices.

134. Reimbursement/direct pay application: With 6 or more primary (main provider) invoices (per application)

This task consists of the total personnel, equipment, and material cost per application required to prepare a SAF reimbursement application. Tasks include preparation of the application including review, clerical support, and all other direct costs such as copying, binding and postage. Task includes a SAF application with six or more primary invoices.

EQUIPMENT RENTAL RATES

135. SVE system with thermal oxidizer: 100 cfm (per month)

Equipment rental cost per month to include skid or trailer mounted vapor extraction equipment including vacuum blower and water knockout, and thermal oxidizer with appropriate gauges and equipment necessary to monitor system effectiveness and meet appropriate permitting and other regulatory requirements. Cost includes a chart recorder capable of recording on a weekly or monthly basis. Task does not include cost of utilities to operate the system.

136. SVE system with thermal oxidizer: 250 cfm (per month)

Equipment rental cost per month to include skid or trailer mounted vapor extraction

equipment including vacuum blower and water knockout, and thermal oxidizer with appropriate gauges and equipment necessary to monitor system effectiveness and meet appropriate permitting and other regulatory requirements. Cost includes a chart recorder capable of recording on a weekly or monthly basis. Task does not include cost of utilities to operate the system.

137. SVE system with thermal oxidizer: 500 cfm (per month)

Equipment rental cost per month to include skid or trailer mounted vapor extraction equipment including vacuum blower and water knockout, and thermal oxidizer with appropriate gauges and equipment necessary to monitor system effectiveness and meet appropriate permitting and other regulatory requirements. Cost includes a chart recorder capable of recording on a weekly or monthly basis. Task does not include cost of utilities to operate the system.

138. SVE system with thermal oxidizer: 700 cfm (per month)

Equipment rental cost per month to include skid or trailer mounted vapor extraction equipment including vacuum blower and water knockout, and thermal oxidizer with appropriate gauges and equipment necessary to monitor system effectiveness and meet appropriate permitting and other regulatory requirements. Cost includes a chart recorder capable of recording on a weekly or monthly basis. Task does not include cost of utilities to operate the system.

139. SVE system with catalytic oxidizer: 100 cfm (per month)

Equipment rental cost per month to include skid or trailer mounted vapor extraction equipment including vacuum blower and water knockout, and catalytic oxidizer with appropriate gauges and equipment necessary to monitor system effectiveness and meet appropriate permitting and other regulatory requirements. Cost includes a chart recorder capable of recording on a weekly or monthly basis and catalyst beds capable of achieving at least 90% destruction efficiency. Task does not include cost of utilities to operate the system.

140. SVE system with catalytic oxidizer: 250 cfm (per month)

Equipment rental cost per month to include skid or trailer mounted vapor extraction equipment including vacuum blower and water knockout, and catalytic oxidizer with appropriate gauges and equipment necessary to monitor system effectiveness and meet

appropriate permitting and other regulatory requirements. Cost includes a chart recorder capable of recording on a weekly or monthly basis and catalyst beds capable of achieving at least 90% destruction efficiency. Task does not include cost of utilities to operate the system.

141. SVE system with catalytic oxidizer: 500 cfm (per month)

Equipment rental cost per month to include skid or trailer mounted vapor extraction equipment including vacuum blower and water knockout, and catalytic oxidizer with appropriate gauges and equipment necessary to monitor system effectiveness and meet appropriate permitting and other regulatory requirements. Cost includes a chart recorder capable of recording on a weekly or monthly basis and catalyst beds capable of achieving at least 90% destruction efficiency. Task does not include cost of utilities to operate the system.

142. Air sparge system: Up to 100 cfm and up to 12 psi (per month)

Equipment rental cost per month to include skid mounted air sparge system including blower or compressor to generate up to 100 cfm flow rate and up to 12 psi pressure, and appropriate gauges and control panel. Task does not include cost of utilities to operate the system.

143. Air sparge system: Up to 100 cfm and 13 to 100 psi (per month)

Equipment rental cost per month to include skid mounted air sparge system including blower or compressor to generate up to 100 cfm flow rate and up to 12 psi pressure, and appropriate gauges and control panel. Task does not include cost of utilities to operate the system.

144. SVE/air sparge portable pilot test unit (per day)

Equipment rental cost per day to include: blower/compressor, vacuum/pressure gauges, anemometer, pitot tubes, generator, miscellaneous fittings, power cords and plugs.

145. Blower: 160 cfm (per month)

Equipment rental cost per month for an explosion proof, regenerative blower with 160 cfm capacity.

146. Blower: 280 cfm (per month)

Equipment rental cost per month for an explosion proof, regenerative blower with 280 cfm capacity.

147. Manual-operated hand auger sampling kit: Hand auger/brass sleeves (per day)

Equipment rental cost per day for manual-operated hand auger and sampling kit (hand auger, brass sleeves).

148. 50-gallon, DOT-approved drum (per drum)

Equipment purchase cost per drum for a DOT-approved 50-gallon drum.

LABORATORY RATES

MOBILE LABORATORY RATES

149. Mobile lab mobilization/demobilization rate for 1 person crew (per event)

Total mobile lab make ready (mobilization/demobilization) cost per event includes the following: preparation and loading of all appropriate equipment, materials, and supplies, including support vehicles, on-site equipment calibration, clean-up, and equipment decontamination. This task also includes all costs associated with initial vehicle travel to the site, site clean-up and return to the yard. This task includes a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the per mile travel rate set forth in mobilization/demobilization incremental travel rate (item description no. 151). Note: This is a one-time charge per event and includes personnel travel for a one person crew.

150. Mobile lab mobilization/demobilization rate for 2 person crew (per event)

Total mobile lab make ready (mobilization/demobilization) cost per event includes the following: preparation and loading of all appropriate equipment, materials, and supplies, including support vehicles, on-site equipment calibration, clean-up, and equipment decontamination. This task also includes all costs associated with initial vehicle travel to the

site, site clean-up and return to the yard. This task includes a round trip travel distance of 60 miles. Incremental mileage over 60 miles will be evaluated on a per mile basis utilizing the per mile travel rate set forth in mobilization/demobilization incremental travel rate (item description no. 152). Note: This is a one-time charge per event and includes personnel travel for a two person crew.

151. Mobile lab - mobilization/demobilization incremental travel rate for a 1 person crew (per mile)

This task consists of the total personnel, equipment and material cost per mile for incremental mileage above the 60 miles included in mobile lab mobilization/demobilization (item description no.149). This task includes all costs associated with vehicle and labor travel to and from the site for a one person crew for this event. Note: This is a one-time charge per event and does not pertain to work crew travel on a daily basis.

152. Mobile lab - mobilization/demobilization incremental travel rate for a 2 person crew (per mile)

This task consists of the total personnel, equipment and material cost per mile for incremental mileage above the 60 miles included in mobile lab mobilization/demobilization (item description no. 150). This task includes all costs associated with vehicle and labor travel to and from the site for a two person crew for this event. Note: this is a one-time charge per event and does not pertain to work crew travel on a daily basis.

153. On-site mobile lab rate for 1 person crew (soil and groundwater analysis) (per hour)

Total on-site mobile lab rate per hour (6-hour minimum) for soil and groundwater analysis. Mobile lab must be ADHS-certified. Task includes one person crew.

154. On-site mobile lab rate for 2 person crew (soil and groundwater analysis) (per hour)

Total on-site mobile lab rate per hour (6-hour minimum) for soil and groundwater analysis. Mobile lab must be ADHS-certified. Task includes two person crew.

ORGANIC ANALYSIS (PER SAMPLE)

155. Lab analysis cost per test: total petroleum hydrocarbons (TPH) by ADHS method 418.1 AZ using an ADHS-certified laboratory (soil only). This analytical method is no longer approved for UST compliance or investigative sampling.

156. Lab analysis cost per test: hydrocarbons by ADHS method 8015 AZR1 (C_{10}-C_{32} DRO-ORO) using an ADHS-certified laboratory (soil only).

157. Lab analysis cost per test: hydrocarbons by EPA method 8015 AZR1 (modified)/ (C_6-C_{10}) (air only)

158. Lab analysis cost per test: hydrocarbons (C_6-C_{10})/BTEX by EPA method 8015 AZR1 (modified) /8021B (air only)

8021B SOIL

159. Lab analysis cost per test: aromatic volatile organic compounds (VOCs) benzene, toluene, ethyl benzene, total xylenes (BTEX) by EPA method 8021B using an ADHS-certified laboratory (soil only)

160. Lab analysis cost per test: halogenated VOCs by EPA method 8021B; Arizona target compounds (AZ list) using an ADHS-certified laboratory (soil only)

161. Lab analysis cost per test: EPA method 8021B; Arizona target compounds (AZ list) using an ADHS-certified laboratory (soil only)

162. Lab analysis cost per test: full list VOCs by EPA method 8021B using an ADHS-certified laboratory (soil only)

8021B GROUNDWATER

163. Lab analysis: cost per test: aromatic VOCs (BTEX) by EPA 8021B using an ADHS-certified laboratory (groundwater only)

164. Lab analysis cost per test: halogenated VOCs by EPA method 8021B for Arizona target compounds (AZ list) using an ADHS-certified laboratory (groundwater only)

165. Lab analysis cost per test: EPA method 8021B; Arizona target compounds (AZ list) using an ADHS-certified laboratory (groundwater only)

166. Lab analysis cost per test: full list VOCs by EPA method 8021B using an ADHS-certified laboratory (groundwater only)

8021B AIR

167. Lab analysis cost per test: aromatic VOCs (BTEX) by EPA method 8021B
(air only)

168. Lab analysis cost per test: halogenated VOCs by EPA method 8021B; Arizona target compounds (AZ list) using an ADHS-certified laboratory (air only)

8260B SOIL

169. Lab analysis cost per test: EPA method 8260B; Arizona target compounds (AZ list) using an ADHS-certified laboratory (soil only)

170. Lab analysis cost per test: full list VOCs by EPA method 8260B using an ADHS-certified laboratory (soil only)

8260B GROUNDWATER

171. Lab analysis cost per test: EPA method 8260B; Arizona target compounds (AZ list) using an ADHS-certified laboratory (groundwater only)

172. Lab analysis cost per test: full list VOCs by EPA method 8260B using an ADHS-certified laboratory (groundwater only)

POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

173. Lab analysis cost per test: semi-volatile organics by EPA method 8270C (base neutral) using an ADHS-certified laboratory (soil only)

174. Lab analysis cost per test: semi-volatile organics by EPA method 8270C (base neutral) using an ADHS-certified laboratory (groundwater only)

175. Lab analysis cost per test: PAHs by EPA method 8310 using an ADHS-certified laboratory (soil only)

176. Lab analysis cost per test: PAHs by EPA method 8310 using an ADHS-certified laboratory (groundwater only)

WASTE CHARACTERIZATION ANALYSIS (PER SAMPLE)

177. Lab analysis cost per test: total petroleum hydrocarbons (TPH) by EPA method 418.1 using an ADHS-certified laboratory (groundwater only) for waste characterization and permit requirement purposes only. Note: This test is not to be used for UST regulatory purposes such as groundwater monitoring.

178. Lab analysis cost per test: TCLP extraction lead (Pb) analysis by EPA method 1311 and the appropriate SW846 EPA method using an ADHS-certified laboratory

179. Lab analysis cost per test: TCLP extraction by EPA method 1311 - analysis of 8 RCRA metals by appropriate SW846 EPA method, using an ADHS-certified laboratory

180. Lab analysis cost per test: ignitability test by EPA method 1010 (liquid only)

181. Lab analysis cost per test: ignitability test by EPA method 1010 modified (soil only)

182. Lab analysis cost per test: corrositivity pH by EPA method 9045 (soil only)

183. Lab analysis cost per test: corrositivity pH by EPA method 9040 (groundwater only)

184. Lab analysis cost per test: paint filter free liquids by EPA method 9095

185. Lab analysis cost per test: polychlorinated biphenyls (PCBs) by EPA method 8082 (soil only)

186. Lab analysis cost per test: lead (Pb) by an approved SW846 EPA method using an ADHS-certified laboratory (soil only)

BIOFEASIBILITY / BIOTREATABILITY ANALYSIS

187. Lab analysis cost per test: Phosphate-P by an approved EPA/ASTM method (soil only)

188. Lab analysis cost per test: Nitrate + nitrite-N by an approved EPA/ASTM method (soil only)

189. Lab analysis cost per test: Nitrogen using an ADHS-certified laboratory (soil only)

190. Lab analysis cost per test: Alkalinity by EPA method 310.1 using an ADHS-certified laboratory (groundwater only)

191. Lab analysis cost per test: Total Organic Carbon by EPA method 415.1

192. Lab analysis cost per test: Total Organic Carbon by EPA method 9060

193. Lab analysis cost per test: Ammonia by EPA method 350.3 or other ASTM method

(groundwater only)

194. Lab analysis cost per test: Sulfate by EPA method 375.2 or other ASTM method (groundwater only)

195. Lab analysis cost per test: Nitrate by EPA method 353.2 (groundwater only)

196. Lab analysis cost per test: Alkalinity by EPA method 310.1 modified (soil only)

197. Lab analysis cost per test: Total Dissolved Solids by EPA method 160.1

198. Lab analysis cost per test: Total Solids by EPA method 160.3

199. Lab analysis cost per test: Biochemical Oxygen Demand (BOD) by EPA method 405 .1 (aqueous matrices only)

GENERAL NOTES – ITEM DESCRIPTION CLARIFICATIONS

NOTE: If a cost ceiling is not appropriate for the task or unit of work claimed, invoices that meet the time and materials detail required in Arizona Administrative Code (A.A.C.) § R18-12-605(E) must be submitted with the SAF application. (Invoices are not required with Pre-approval applications, but appropriate detail describing the activity will be required for costs to be evaluated.)

1. Cost Ceiling Tasks and the SAF Bid Process:
   Designated tasks: Item 115; Remedial System Installation

   A remedial system installation, approved during the SAF Technical Review, may be eligible up to the lowest of three (3) written, detailed, firm, fixed cost, time and materials bids. If the lowest cost bid is not selected, an explanation in support of the selection must be provided with the SAF pre-approval or reimbursement application. Costs for the designated task should be submitted as a "lump sum" line item on the SAF pre-approval or reimbursement application using cost ceiling code no. 115. A copy of the bid request must be submitted with the SAF application.

   Each bid must be for projects that will use the same methodology to achieve compliance with the regulatory requirements and be based on the same bid request. Each activity in each bid request response must have an itemized cost to include the kind of work, equipment, or materials and any labor, transportation, or other activities that constitute the itemized cost.

   A minimum of three bids must be submitted for costs to be considered for payment. If three responses to the bid request cannot be obtained, documentation that the bid was solicited (signed certified mail receipt) and the contact declined response must be provided with the appropriate SAF application.

   If the consultant or contractor preparing the SAF Pre-Approval or Reimbursement application is including their bid response for performing the remedial system installation, two additional bids from qualified bidders must be solicited.

   Costs incurred to prepare the bid requests and evaluate responses for the remedial system installation are considered eligible for payment as a separate project management line item in the application. Time and material detail must be submitted.

2. Mark-Up on Consultant/Primary Contractor Direct Charges:

   Mark-up claimed on direct charges incurred by the Consultant/Primary Contractor will not be SAF eligible. For purposes of the 2002 Cost Ceilings, direct charges include consultant/primary contractor labor expense and capital equipment owned by the

consultant/primary contractor and billed to the project as a rental item. Mark-up on services provided by an affiliate or subsidiary company of the Consultant/Primary Contractor is not SAF eligible.

3. Mark-up on Contracted Work:

Mark-up, up to 16 percent, claimed on approved subcontracted services and/or pass-through expenses is SAF eligible. Mark-up can only be applied to actual subcontractor costs paid by the Consultant/Primary Contractor.

4. Project Management:

Project Management costs are included in each of the 2002 cost ceiling line items or task activities. Project Management is not SAF eligible as a separate and unique task or activity unless the activity is not included in a cost ceiling line item or task. Typical Project Management activities include: client and regulatory agency correspondence, quality assurance reviews of ADEQ required submittals, administrative and accounting activities, and related pre-and post-field planning tasks.

5. UST Removal and Closure:
Designated tasks: Item 38 through 43; UST removal (various tank sizes)

To be eligible for payment from the SAF, permanent closure of an UST performed in 2002 must meet the requirements of A.R.S. §49-1052(A) and associated rules.

Associated activities, such as removal and disposal of site surface improvements such as dispenser islands, over-head canopies, buildings, or subgrade components of the UST system such as product conveyance piping are not eligible for reimbursement.

6. Off-Site Access Agreement:
Designated tasks: Item 24; Pursuit of off-site access agreement with a private entity only

Site access activities conducted in accordance with A.R.S.§ 49-1022 may be considered SAF eligible. ADEQ must be copied on each site-access request and supporting documentation must exist in the LUST File. Off-site access efforts in excess of those described in item description number 24 will not be reimbursed without prior written notification to and participation by the ADEQ. Approved site access activities in excess of the item description will be evaluated on the basis of reasonable and necessary.

7. Consultant's Full Day and Half-Day Rate:
Designated tasks: Item 33 and 34; Consultant's full day rate and Consultant's half day rate, respectively

Consultant's full day and half-day rates include field instrumentation appropriate for the field task being performed. The full day and half-day rates also include total equipment, material and personnel costs incurred for preparation and loading of materials and supplies necessary to support a consultant's daily field activity. A consultant's travel time to and from the site is not included in these tasks.

A consultant may claim a half-day rate if on site for a period of four hours or less. A consultant must be on site for a period of at least four hours and less than or equal to eight hours to claim a full day rate. A consultant may claim no more than a full day rate plus a half-day rate if on site for more than eight consecutive hours in a 24-hour period. Full day and half-day rates are conceptually based on a blended rate inclusive of standard personnel rates. Project management related only to field activities associated with the specific day's field work are included. These rates do not include vehicle mileage, travel time or per diem.

8. Approved Corrective Action Plan (CAP) for active remedial treatment or natural attenuation:
Designated tasks: Item 28 and 29; ADEQ-approved CAP for active remedial treatment of contamination and ADEQ-approved CAP for natural attenuation, respectively.

The CAP must receive final approval by ADEQ to be considered for payment. A CAP is submitted to satisfy the requirements of 40 CFR §§ 280.66 and 280.67, and is not a SAF pre-approval work plan to perform corrective actions or CAP-related tasks.